

ON SOME
MORBID APPEARANCES
OF
THE ABSORBENT GLANDS
AND
SPLEEN.

BY DR. HODGKIN.

PRESENTED

BY DR. R. LEE.

READ JANUARY 10TH AND 24TH, 1832.

THE morbid alterations of structure which I am about to describe are probably familiar to many practical morbid anatomists, since they can scarcely have failed to have fallen under their observation in the course of cadaveric inspection. They have not, as far as I am aware, been made the subject of special attention, on which account I am induced to bring forward a few cases in which they have occurred to myself, trusting that I shall at least escape severe or general censure, even though a sentence or two should be produced from some existing work, couched in such concise but expressive language, as to render needless the longer details with which I shall trespass on the time of my hearers.

CASE I.

November 2, 1826. Joseph Sinnott, a child of about nine years of age, in Lazarus's ward, under the care of J. Morgan. His brother, his constant companion with whom he had habitually slept, died of phthisis a few months previously; he was much reduced by an illness of about nine months, during which time he had been subject to pain in the back, extending round to the abdomen. On his admission his belly was much distended with ascites. He had also effusion into the prepuce and scrotum. On the latter was a large ulcer induced by a puncture made to evacuate the fluid.

Head.—There was a considerable quantity of serous effusion under the arachnoid and within the ventricles. There were a few opaque spots in the arachnoid, but this membrane was in other respects healthy. The pia mater appeared remarkably thin and free from vessels. The substance of the brain was generally soft and flabby, but no local morbid change was observable.

Chest.—The pleura on the right side had contracted many strong and old adhesions, in addition to which there were extensive marks of recent pleuritis. On the left the pleura was nearly or quite free from adhesion, but there was some fluid effused into

the cavity. There was some little trace of a tubercular cicatrix at the summit of the right lung, but the substance of both lungs was generally light and crepitant, with a very few exceedingly small tubercles scattered through them.

The mucous membrane exhibited an excess of vascularity; the bronchial glands were greatly enlarged and much indurated.

The heart appeared quite healthy.

Abdomen.—There was extensive recent inflammation of the peritoneum, in the cavity of which there was a copious sero-purulent effusion, and the viscera were universally overlayed with a very soft light yellow coagulum, too feeble to effect their union, though evidently having a tendency to do so. The mucous membrane of the stomach and intestines was generally pale and of its ordinary appearance, but in some few spots it was softened and readily separated itself from the subjacent coat. The contents of the intestines were copious and of an unhealthy character, overcharged with bile. The mesenteric glands were generally enlarged, but one or two very considerably so, equalling in size a pigeon's egg, of semi-cartilaginous hardness and streaked with black matter. The substance of the liver was generally natural, but contained a few tubercles somewhat larger than peas, white, semi-cartilaginous, and of an uneven surface. The

pancreas was firmer than usual, more particularly at its head, which was somewhat enlarged. The spleen was large and contained numerous tubercles. The absorbent glands about both the two last-mentioned organs were much enlarged. Both kidneys were mottled with a light colour, but were free from induration. A continuous chain of much enlarged indurated absorbent glands of a light colour accompanied the aorta throughout its course, closely adherent to the bodies of the vertebræ, and extended along the sides of the iliac vessels as far as they could be traced in the pelvis. None of these vessels had been sufficiently compressed to occasion the coagulation of the contained fluids. The coats of the thoracic duct, which was large, were perfectly transparent and healthy.

CASE II.

September 24, 1828. Ellenborough King, aged ten years, was admitted into Luke's ward on the 6th of August, 1828, under the care of Dr. Bright. He was the youngest of six children, of whom the first five were reported to be all healthy. This child had also been healthy till about thirteen months ago, when his strength, flesh, and healthy appearance began to fail. He was at that time living in the west of England. A tumour was observed in the left hypochondrium in the situation of the spleen, the glandulæ concatenatæ on the right side were observed to be considerably enlarged, but under the treatment employed,

these tumours, as well as that in the situation of the spleen, were at times very considerably reduced in size.

It does not appear that he was ever subject to hæmorrhage, nor till very lately to dropsical effusion; his appetite was generally good. After his admission into the hospital the tumour on the left side was observed to extend considerably below the left hypochondrium, but was reported not to be so large as it had formerly been. The glands on the left side of the neck were swollen, as well as those on the right, the abdomen was somewhat distended, and there was considerable œdema of the scrotum.

The head was not opened.

The glands in the neck had assumed the form of large smooth ovoid masses, connected together merely by loose cellular membrane and minute vessels: when cut into they exhibited a firm cartilaginous structure of a light colour and very feeble vascularity, but with no appearance of softening or suppuration. Glands similarly affected accompanied the vessels into the chest, where the bronchial and mediastinal glands were in the same state and greatly enlarged. There were some old pleuritic adhesions. The substance of the lungs was generally healthy. There was a good deal of clear serum in the pericardium, but this membrane, as well as the heart, was quite healthy.

In the peritoneal cavity there was a considerable

quantity of clear straw-coloured serum mixed with extensive, recent thin diaphanous films. The mucous membrane of the stomach and intestines was tolerably healthy.

The mesenteric glands were but slightly enlarged, and but little if at all indurated; but those accompanying the aorta, the splenic artery, and the iliacs were in the same state as the glands of the neck.

The liver contained no tubercles, and its structure was quite healthy. The pancreas was rather firm, and the glands situated along its upper edge, were, as before stated, greatly enlarged. The spleen was enlarged to at least four times its natural size, its surface was mammillated, and its structure thickly sprinkled with tubercles, presenting the same structure as the enlarged glands already described.

CASE III.

BY H. PEACOCK, ESQ.

November 28, 1829. William Burrows, aged about thirty years. He was admitted into Naaman's ward on the 26th of September, 1829, under Mr. J. Morgan, for ulcers of a scrofulous character in the axilla and neck, accompanied with general cachexia; he had previously been a patient in Samaritan's ward with secondary symptoms of syphilis,

and was supposed to have taken large quantities of mercury.

About four months before his death, which occurred on the 27th of November, abdominal dropsy made its appearance.

The body was extremely emaciated, some ragged excavated ulcers were situated about the right axilla and thorax ; the ulceration extended beneath the neighbouring skin, and between the pectoral muscles. The muscles of the body were pale.

The head was not examined.

The left cavity of the chest contained about a pint of serum. The lung was rather cedematous, but otherwise healthy, with the exception of some puckering and apparently chalky deposit at its apex. The lung on the right side adhered closely to the walls of the cavity, the adhesions being firm and cellular. The lung resembled that of the left side, and was also slightly disorganized at its apex. The pericardium contained about an ounce of clear and straw-coloured fluid. The heart was small and flabby.

The abdomen contained about two pints of clear serum. The stomach and alimentary canal were much distended with flatus. The liver was of a shrunken irregular shape, and was connected to the

diaphragm by a few firm adhesions. Its structure was indurated, pale, and thickly pervaded with a substance having a white, hard, tuberculous character which in some parts had the form of defined rounded masses of the size of large pin heads, but for the most part was diffused. Some sections exhibited parts apparently stained with a dark ecchymosis as if from extravasated blood.

From some portions of liver seen after the inspection by Dr. Hodgkin, it appeared to him that the liver was in that state in which the acini became dense, rounded, and of a light colour, resembling small tubercles, and are readily detached: a condition of liver which is almost peculiar to those who have laboured under a cachectic condition from mercury. The gall-bladder was small and filled with a dark coloured green bile. The pancreas was not diseased. The spleen had contracted several firm adhesions to the neighbouring peritoneum; it was enlarged to about twice its usual size, and was unusually firm. Sections exhibited its structure dense, rather dry, and of a dark red colour, but homogeneous. Dr. Hodgkin examined this spleen, a short time after its removal from the body, and found its substance generally pervaded by numerous minute translucent bodies somewhat resembling incipient miliary tubercles of the lung, but considerably smaller than these generally are.

The kidneys were pale, flabby, and slightly mottled.

A few small miliary tubercles were found in the peritoneum, about the inguinal region resembling those which have been noticed above in the liver. Some of the mesenteric glands were much enlarged and filled with a firm white deposit. The inguinal, lumbar, and aortic glands were similarly affected. The bronchial glands were in a similar state, and also extensively ossified (or loaded with earthy matter). The axillary glands were in a state of suppuration, and exposed by ulceration at the part. The thoracic duct presented nothing unusual.

CASE IV.

January 8, 1830. Thomas Westcott, aged apparently about fifty years, by trade a carpenter, a patient of Dr. Addison in the Clinical Ward, admitted 30th of December, 1829. He was not at all wasted, but was rather plump than otherwise; he had a pale and peculiar, cachectic countenance, which, without minute description, may be suggested to the mind by comparing it to what is seen in some cases of confirmed disease of the spleen. The most remarkable feature in his case was the great enlargement of nearly, if not quite, all of the absorbent glands within reach of examination, but more especially in the axillæ and groins. Those at the side of the neck were scarcely less so. Most of these glands which were within reach, were of about the size of pigeon's eggs, a few somewhat larger, and others rather smaller. They were of a smooth

rounded or ovoid figure, and were only moderately firm, rather than indurated. An enlargement was also to be felt in one epididymis. The abdomen was distended, but the substance of the parietes appeared thick, no distinct tumour could be felt in the region of the spleen, or in any other part of the abdomen.

The functions of the brain had been somewhat disturbed, and the left eye did not see so well as the right.

It did not appear that this patient had been liable to any particular exposure, nor could any circumstance be referred to as the exciting cause of his malady. His death took place very suddenly in the morning of the 8th, and the examination was made four hours and a half after.

The veins of the head and neck were turgid. There was no lividity of the face. There were some ecchymosed spots on one of the legs.

The arachnoid was remarkably thick and opaque. On the surface of the right hemisphere there was a diffused light rose-red colour, occupying the space of about the size of a crown piece; it appeared to depend on infiltration of the pia mater. This membrane separated readily from the surface of the brain. No morbid appearance was discovered in the substance of the brain, and no undue quantity of fluid

in the ventricles. The cerebellum seemed to be, proportionately, rather small.

The right optic nerve was rather smaller than its fellow.

The glands in the axillæ and neck, as might have been expected, were found prodigiously enlarged, the deepest seated being in general the largest. The cellular structure around these was loose and free from any morbid deposit. These glands were smooth and of a whitish colour externally, with a few small bloody spots. When cut into, their internal structure was likewise seen to be of a light, nearly white, colour with a few small interspersed vessels. They were of a soft consistence, which might be compared to that of a testicle. They possessed a slight translucence, and were nearly or quite uniform throughout, exhibiting no trace of partial softening or suppuration. Although in appearance and consistence these enlarged glands bore considerable resemblance to some fungoid tumours, they presented nothing of the encysted formation. The alteration in this case seemed to consist in an interstitial deposit from a morbid hypertrophy of the glandular structure itself, rather than on a new or adventitious growth. The glands in the groin presented precisely the same character as those just described; the same may also be said of those in the thorax and abdomen, the situation and extent of which will be presently stated.

The pleuræ were nearly, if not altogether, free from adhesions and effusion. There were a few ecchymosed spots on the posterior part of the right lung; both lungs were spongy and crepitant, but rather emphysematous, and of a light colour, from the small quantity of blood which they contained.

The bronchial tubes contained some thick mucus.

The pericardium was healthy. The heart was greatly enlarged, and the right cavities particularly dilated; but the left were also large and distended, with thickened parietes. The muscular structure however did not appear to be diseased. The blood in the heart was barely coagulated, resembling that recently drawn into a basin. The glands along the subclavian arteries and about the roots of the bronchi were much enlarged.

In the abdomen nothing particular was noticed about the peritoneum. The glands at the small curvature of the stomach, several in Glisson's capsule, and a large mass of them along the entire course of the abdominal aorta and iliac arteries were greatly enlarged. There was a marked difference in the mesenteric glands, which, though larger than is natural, were none of them of the prodigious size of those above mentioned; they were however of a light colour, and their increase of size evidently depended on an interstitial deposit similar to that of the other glands. One of the enlarged glands

in the lumbar region had a good deal of superficial ecchymosis. The absorbent vessels connected with it were enlarged and distended with a bloody serum. A similar fluid less deeply tinged was found in the thoracic duct.

The liver was very large, pale, and slightly granular. The spleen was very greatly enlarged, being at least nine inches long, five broad, and proportionally thick; its colour was lighter and redder than is natural, and more firm and close. On cutting into it an almost infinite number of small white nearly opaque spots were seen pervading its substance; they were of irregular figure, but a few appeared nearly circular. They appeared to depend on a deposit in the cellular structure of the organ. There were no tubercles in the spleen, but the spots just mentioned were perhaps a commencement of this kind of formation.

The pancreas was large and pale, but otherwise healthy. The mucous membrane of the stomach and bowels offered nothing remarkable.

CASE V.

Inspection of a middle aged man, who had latterly been a patient of Dr. Back. He had long been in bad health, and had been for some time a patient under Dr. Bright. His last most urgent symptoms were referrible to the chest. When in the hospital

the former time, he was observed to have the glands of the neck, and more particularly those near the upper part of the thyroid cartilage, considerably enlarged.

The body was emaciated. The glands before mentioned were still much enlarged, those in the axillæ were not observed to be particularly so, those in the groins were somewhat so. The abdomen was distended.

The head was not examined.

The greater part of one lung was distended, solid and void of air, its texture was rather soft and readily lacerable. Its colour seemed to be the result of the acute white hepatization very deeply soiled with reddish brown. The other lung was far from healthy, but it was rather engorged and softened than hepatized, and still contained air. One, if not both, pleuræ exhibited traces of recent inflammation with little or no effusion.

Nothing remarkable is remembered to have been noticed in the heart or pericardium.

In the abdomen there was a large quantity of serum with little appearance of coagulable lymph. In the stomach the mucous membrane was not quite healthy, presenting some indications of chronic inflammation; it, as well as the intestines, contained

unhealthy secretions. The liver was of remarkably large size, weighing upwards of seven pounds. Its form and the smoothness of its surface were little if at all altered. The colour was somewhat mottled with a mixture of darkish green and yellow. The acini were manifestly enlarged, and it was suspected that they had undergone the fatty degeneration; but on exposure to heat, it appeared to contain little, if any, greasy substance. The spleen was very large, its weight is not known, but it appeared to be four or five times the average size; its texture was rather more solid and compact than is natural; it contained no tubercles, but the cellular structure interspersed through the parenchyma was more conspicuous than is usual, in some parts appearing in the form of specks, in which it was soft and easily broken down. The absorbent glands accompanying the aorta were greatly enlarged, some equalling at least the size of a pullet's egg; some, but more especially those in the abdomen, were reddened by injected or ecchymosed blood. The receptaculum chyli and some of the larger lymphatic branches, contained blood mixed with dark and almost black coagula. The thoracic duct, which was large, was filled in the same manner.

CASE VI.

July 19, 1830. Thomas Black, aged about fifty years, admitted into Barnabas Ward on the 30th of June, 1830, under the care of Dr. Bright. He was affected with large tuberosc swellings of considerable

firmness on both sides of the neck, in both axillæ, and in both groins. His abdomen was greatly distended, he suffered from difficulty of breathing, and was pale and rather emaciated.

It appeared that, about two years before, he had laboured under fever. That, being exposed to cold, shortly after, he observed the glands swell on one side of the neck; not long after on the other side, and in succession, those in the situations above mentioned.

The body presented considerable lividity, especially the extremities on the left side. The left side of the neck, and the left axilla, presented the largest tumours.

The head was not examined.

The tumours evidently depended on greatly enlarged absorbent glands along the course of the carotid and axillary arteries. On raising the sternum they were found to extend along the subclavians and internal mammaries; they were also found, though in less number and size, along the aorta in the posterior mediastinum; but it did not appear that the bronchial glands were at all similarly affected. There was some appearance of recent pleuritis and serous effusion into the chest.

In the peritoneal cavity there was a large quantity

of yellow serum mixed with some flakes of lymph. A large and continued mass of nodulous glandular tumours surrounded the aorta and iliac arteries, but the mesenteric glands were very slightly affected. The omentum was corrugated. The liver was rather small, with an irregular and uneven surface, its colour was lighter than natural, and the acini were converted into rounded fleshy masses, without any very great change in the intervening cellular membrane. It also contained two or three white tubercles, which resembled fungoid tubercles of the liver, and were situated at the surface of the organ. The structure dependent on cysts was not demonstrable in them, but from their form it might be suspected. The spleen was of moderate size, and appeared to be quite free from any adventitious deposit, which is a fact worthy of remark, as in very many cases of glandular disease bearing resemblance to the present case, this organ has been affected, and generally tubercular. The pancreas was imbedded in the tumours, but appeared pretty healthy.

The kidneys were livid and congested.

The tumours which formed the most striking features in this case very nearly resembled each other in structure; there appeared to be merely a little difference in firmness; they were of various sizes, from that of a horse-bean to that of a hen's egg; they had a round or ovoid figure, and were invested by a thin membrane, pretty smooth externally, and

connected to the loose and apparently healthy cellular membrane which surrounded the tumours; the other surface intimately adhered to the structure of the tumour. This texture was apparently pretty uniform throughout, and was pale and slightly translucent, and could not be said to evince traces of the mode of formation dependent on cysts; they shewed no disposition to suppuration or softening; some, when just taken from the body, were of a semi-cartilaginous hardness, but became considerably softer after a little maceration.

The aorta appeared to be a little compressed by the tumours.

This patient had an old reducible hernia on the right side, on which side there appeared to be hydrocele also.

It may be observed that notwithstanding some differences in structure, to be noticed hereafter, all these cases agree in the remarkable enlargement of the absorbent glands accompanying the larger arteries; namely, the *glandulæ concatenatæ* in the neck, the axillary and inguinal glands, and those accompanying the aorta in the thorax and abdomen. That as far as could be ascertained from observation, or from what could be collected from the history of the cases, this enlargement of the glands appeared to be a primitive affection of those bodies, rather than the result of an irritation propagated to them from

some ulcerated surface or other inflamed texture through the medium of their inferent vessels, and that although, in some instances, the glands so enlarged may contain a little concrete inorganizable matter, such as is known to result from what is called scrofulous inflammation, it is obvious that this circumstance is not an essential character, but rather an accidental concomitant to the idiopathic interstitial enlargement of the absorbent glandular structure throughout the body. That unless the word inflammation be allowed to have a more indefinite and loose meaning than is generally assigned to it, this affection of the glands can scarcely be attributed to that cause, since they are unattended with pain, heat, and other ordinary symptoms of inflammation, and are not necessarily accompanied by any alteration in the cellular or other surrounding structures, and do not shew any disposition to go on to the production of pus or any other acknowledged product of inflammation except where, as in the cases above alluded to, inflammation may have supervened as an accidental affection of the hypertrophied structure. Nor can the enlargement in question, with any better reason, be attributed to the formation of any of those adventitious structures, the production of which I have already had occasion to describe, and have referred to the type of compound adventitious serous cysts. Notwithstanding the different characters which this enlargement may present, it appears nearly in all cases to consist of a pretty uniform texture throughout, and this rather to be the consequence of a general increase of every

part of the gland, than of a new structure developed within it, and pushing the original structure aside, as when ordinary tuberculous matter is deposited in these bodies. At the same time it must be admitted that the new material by which the enlargement is effected, presents various degrees of organizability, which in some instances is extremely slight, and appears incompetent to maintain the vitality of the affected gland. In such cases the new structure will generally become opaque, soften, or break down, and acting as a foreign irritating body, excite irritation and lead to the formation of abscess. The case of William Burrows, (No. III.,) and also that of a native of Owhyhee, who died in Guy's Hospital with extensive abscess in the axilla, are, I believe, to be considered of this kind.

The remarkable appearance of blood in the thoracic duct and some of the absorbents, observed in the case of Thomas Westcott, (No. IV.,) although it sufficiently attracted my attention to induce me to have a drawing immediately made, was only regarded as an accidental occurrence ; but the recurrence of the same phenomenon to a much more considerable and striking extent in the recent case, (No. V.,) induces me to suppose that it is intimately connected with this glandular disease. It may also be observed that in the last-mentioned case the enlarged glands from which the lymphatic vessels containing blood proceeded, were particularly loaded with blood ; and if my recollection does not deceive me, a tendency to

the same state was present in the case of Westcott, although it escaped notice in the record of the inspection.

Another circumstance which has arrested my attention, in conjunction with this affection of the absorbent glands, is the state of the spleen which, with one exception in all the cases that I have had the opportunity of examining, has been found more or less diseased, and in some thickly pervaded with defined bodies of various sizes, in structure resembling that of the diseased glands. We might, from this circumstance, be induced to suspect that these bodies in the spleen, like the enlarged glands themselves, are the result of the morbid enlargement of a pre-existing structure, an idea which may derive some support from the fact, that although in human spleens no glandular structure is distinguishable, in those of some inferior animals a multitude of minute bodies exist which appear to be of that nature. Malpighi indeed considered the acini or granulations in the spleen to be glands. In one instance it may be remarked that although the glandular derangement had advanced very far, the depositions in the spleen were extremely minute, assuming the appearance of miliary tubercles. Hence, we may conclude that if, as I conceive to be the case, there be a close connection between the derangement of the glands and that of the spleen, the latter is a posterior effect, and on this account may not always have been produced, when that of the glands or some other disease

carried off the patient. In other instances, the spleen, although much enlarged, contained no regular defined bodies, although the white cellular structure was very evident in increased quantity pervading the dense and enlarged mass of the organ. In such cases it might still be doubted whether, had the patient's life been protracted, the deposits in question might not ultimately have taken place, yet I am inclined to believe the contrary, and to suspect that either the previous derangement of the structure of the organ or the greater age of the patients may have opposed their production. I mention this effect of age merely as a suspicion or idea, founded on the fact that I have very rarely, if ever, met with any kind of tubercles, excepting those of malignant character, in the spleens of adults, whilst they have been by no means unfrequent in a far less number of spleens of children and young persons which it has fallen to my lot to examine. The only exceptions which I can call to mind, as having been furnished by my own observation, have been in the case of one or two foreigners from warm countries, on whom the change of climate may have had considerable effect.

Some further confirmation of my suspicion that a connection exists between the glandular derangement of which I have been speaking, and the state of the spleen, has occurred to me since the preceding observations were written. Whilst examining the unrivalled collection of pathological drawings made by my friend Dr. Carswell, I was struck with one repre-

senting a greatly enlarged spleen, loaded with large tubercles of a rounded figure and light colour. I immediately recognized it as a fine example of the affection I have been describing, and my suspicions were presently confirmed by the doctor's shewing me another fine drawing of the greatly enlarged glands of the neck, axillæ, and groins of the same subject.

The Doctor has favoured me with a copy of the case, and allowed me to place the drawings themselves before you.

CASE VII.

“ Cancer Cerebriformis of the Lymphatic Glands, and of the Spleen.

“ The delineations of this very remarkable case were taken from a man who died in the hospital St. Louis at Paris, in the month of April. Monsr. Lugol, one of the physicians of the hospital, and under whose care the patient was, has promised to give me the particulars of this case. I was told, however, that the patient, who was between thirty and forty years of age, stout made, and not lean, had been affected with swelling of the glands under the jaws, along both sides of the neck, in the axillæ and groins for between three and four months, from which he had suffered but little inconvenience, to which he had paid but little attention, and had employed no remedies. It was only a short time before he applied to be taken into the hospital that he felt a

difficulty in swallowing, which rapidly increased, and for the last two or three days was such as to prevent him from taking any kind of food whatever. As his appetite had never been affected by the disease, he was, when he came to the St. Louis hospital, in a state of great suffering, not only from want of food and from debility, but from the idea that he was rendered incapable of satisfying the cravings of hunger, together with the prospect of inevitable death.

“ He lived rather more than two days.

“ *Inspection of the body.*—On each side of the neck were large groups of glands extending from the angle of the jaw down to the clavicle, where they were joined to another group, coming up from the axillæ and passing under the clavicle. The sub-maxillary and sublingual glands were greatly enlarged, and united with the other lymphatic glands, formed an almost continuous chain stretching along the border of the jaw, and uniting under the chin. These glands were of various sizes, some of them were not larger than a pea, while others were as large as a hen's egg; they were round, oval, or of an irregular form, particularly where they were united by a common capsule. A great many of them presented the colour which distinguishes them in the healthy state; others were of a yellowish tinge, with more or less redness and vascularity; whilst a few were of a deep red colour and highly vascular. The

greater number of them when pressed between the fingers, felt pretty firm and somewhat elastic; those that were red and vascular were softer. All of them were enclosed in a thin but firm capsule, which contained a substance of the colour and consistence of brain, and in which were distributed a considerable number of blood-vessels. In the softest the vascularity was such as to give to the cerebriiform matter an appearance resembling a mixture of equal parts of brain and blood. A similar state of the glands was observed in both groins. The greater number of them were as large as pigeons' eggs, and could be followed passing upwards under Poupart's ligament, surrounding the great blood-vessels, and terminating in the diseased lymphatic and mesenteric glands. The diseased appearances observed in the glands of the groin are represented in No. 4—6. Fig. I; those of the neck and axillæ No. 4. a. In No. 4—6 is seen the appearance of the substance of which the glands were formed; in one of them the vascularity of this substance is seen to be very great, whilst in the other the vessels are few in number, long, and slender. The quantity of cerebriiform matter is also seen to differ considerably in each. Besides, in the lower figure the lobulated structure which it presents is pretty well marked. In Fig. III. two of the glands are represented after having been injected. In the upper one a large vein is seen coming out from it, and arising from a great number of minute vessels, which apparently are situated near the surface of the gland. In the lower one, the corresponding artery is shewn,

dividing and subdividing into an immense number of extremely fine branches which are distributed throughout the substance of the gland. No. 4. c. Fig. I. represents an enormous tumour formed by the lymphatic glands situated under the liver, duodenum, pancreas, and great blood-vessels of these parts. It was as large as an adult's head, projecting forwards on a level with the convex surface of the liver, and carried before it the duodenum, pancreas, and gall-ducts, which passed over its anterior surface. Fig. II. represents a section of this tumour, which is seen to be formed of a great number of glands, some of which are as large as a small orange. Like those of the neck and axillæ, they were composed of cerebriform matter, possessing a greater or less degree of vascularity. In the centre of the tumour considerable hemorrhage had taken place, the centre of the hemorrhagic effusion was occupied by coagulated blood, and the circumference by layers of fibrine. The vena cava and aorta passed through the tumour, and the former was nearly perforated by one of the diseased glands.

“ No. 4. e. Represents the same pathological condition in the glands situated in the posterior fauces. The glands situated around the root of the tongue were so much enlarged as to shut up completely by their projecting upwards, backwards, and forwards, the posterior nares and superior aperture of the œsophagus. I could not ascertain the precise state of the epiglottis, but it must to a certain

extent at least have been free, as it did not appear that inspiration had been much impeded. The amygdalæ, formed entirely of cerebriform matter, presented a pale-yellow colour tinged here and there with red specks, produced apparently from the rupture of minute blood-vessels. They have also lost that characteristic appearance from which they derive their name, having become almost perfectly smooth from the accumulation of the cerebriform matter and the distention of their envelope.

“The spleen was the only organ apart from the lymphatic glands which presented a similar, or indeed any, disease in this remarkable case. The external surface of this organ is shewn in No. 4. a. Fig. I. Besides great increase of its bulk, it presented externally a great number of irregular elevations surrounded by redness and vascularity. When divided longitudinally, Fig. II., it appeared to be formed entirely of cerebriform matter and fine blood-vessels; hardly any trace of its natural structure being observable. It presented a lobulated structure; the lobules varying from the size of a small pea to that of a large gooseberry; these being again divided and subdivided into smaller ones—the boundaries of the lobules and the intersections of the latter were the parts in which vascularity was greatest—it did indeed appear as if the lobulated structure had been the result of a vascular net-work so disposed as to inclose and separate more or less completely portions of different sizes of the cerebriform matter. It

depended, however, in all likelihood, on the structure of the spleen, in the cells of which, or in the blood which they contain, the cerebriiform matter was deposited or formed, whilst the blood-vessels which surrounded the lobules and ramified in their inter-sections arose from those which belong to the splenic cells.

“The body having been removed by inadvertence before I had time to examine the chest, I did not ascertain the state of the bronchial glands, but I was informed by one of the house-physicians that they were not diseased.”

Although the Doctor has employed the term “cerebriiform matter,” which conveys a ready idea of the texture of the diseased glands, he will excuse my differing from him so far as to regard the affection in this case as distinct from cerebriiform cancer. I feel the less difficulty in doing so, in the recollection that one of the cases of which I had given the details was, like Dr. Carswell’s, considered as fungoid until a special and close inspection had detected the difference.

Besides the preceding cases, of which I have been enabled to obtain the inspections, I have met with other examples in the living subject which, as far as the glands were concerned, were evidently of the same character with those I have been describing. One of the most remarkable occurred in the person of a Jew, apparently between forty and fifty years of

age; the glands in the neck were prodigiously enlarged, forming smooth ovoid masses, unaccompanied by inflammatory symptoms or thickening of the surrounding cellular structure. The glands in the axillæ and groins were in the same state; in fact, in this case, the enlargement was more considerable than in any other that I have witnessed. His general health was much impaired; I do not recollect that there were any dropsical symptoms at the time I saw him. I accidentally lost sight of him, but afterwards learnt that he died about two months from the time of my seeing him.

Another case occurred in a cachectic, rather emaciated child, who was brought, on one occasion only, as an out-patient, to Guy's Hospital. The glands in the neck, axillæ, and groins were considerably enlarged, and as far as I could judge were of the firm character observed in the cases of Joseph Sinnott and Ellenborough King, rather than the softer and more fleshy character noticed in the glands of Westcott, Black, Case V, and as far as I could observe, in that of the Jew just mentioned.

A pathological paper may perhaps be thought of little value if unaccompanied by suggestions designed to assist in the treatment, either curative or palliative; on this head however I must confess that I have nothing to offer.

Most of the cases, it may be observed, were those

of patients in the hospital, where they had not sought admission until the disease had reached an advanced and hopeless stage. The Jew was the only individual whom I had an opportunity of treating myself, and him only for a short period, when his case had already become hopeless. The cascarilla and soda which were given with a view to improve his general health, and the iodine employed as the agent most likely to affect the glands, appeared to be productive of no advantage, on which account it is probable the patient withdrew himself from my observation. Were patients thus affected to come under my care in an earlier and less hopeless period of their malady, I think I should be inclined to endeavour as far as possible to increase the general vigour of the system, to enjoin, as far as consistent with this object, the utmost protection from the inclemencies and vicissitudes of the weather, to employ iodine externally, and to push the internal use of caustic potash as far as circumstances might render allowable. I mention this last part of the treatment in consequence of the strong commendation which Brandrish has bestowed on the use of this caustic alkali in absorbent glandular affections. The views which I have been induced to take respecting the functions of the absorbent vessels, would make me the more disposed to adopt it*.

* Shortly after the reading of this paper, I was favoured with the following communication from my friend G. O. Heming, of Kentish Town:—

HAVING been led to notice some morbid appearances in the spleen connected with the glandular disease of which I have been speaking, I take the opportunity, before quitting this organ, to advert to another morbid appearance presented by it. In the observations prefixed to the sixth section of the second part of the catalogue of Guy's Museum*, I have briefly noticed a derangement of structure met with in the spleen, which arrested my attention, rather from con-

DEAR SIR,

You will, I am sure, be pleased with the following extract from Malpighi.

Yours truly, G. O. HEMING.

“ In homine difficiliter emergunt (speaking of the granules in the spleen): si tamen ex morbo universum glandularum genus turgeat, manifestiores redduntur, auctâ ipsarum magnitudine, ut in defunctâ puellâ observavi, in quâ lien globulis conspicuis racematim dispersis totus scatebat.”

* “ The preparations from 2000 to 2004 inclusive, although of but little pathological importance, possess some interest as specimens of a morbid appearance occasionally met with in the spleen, but which, so far as the author knows, has not been hitherto described or noticed. It consists of a partial or circumscribed degeneration of the structure which becomes preternaturally firm and dense, and of a light colour. The part thus affected may be easily mistaken for a tubercle, until close inspection has detected in it traces of the original structure of the organ. It is bounded by a defined line, and on the surface there is sometimes a slight depression where it is united to the healthy structure. In all the instances which the author has yet observed, the portion of spleen thus degenerated has been situated in a transverse direction. He has observed it principally, if not exclusively, in males, and he is inclined to consider it as the result of external injury.”—Vid. Catalogue of the Museum of Guy's Hospital. Part II. Sect. 6.

sidering it as hitherto undescribed, than from having reason to attach any importance to it in conjunction with disease. The cases which I have since met with have not only thrown further light on its nature, but have shewn that it may become the cause of violent and even fatal symptoms. The partial induration of the spleen accompanied with loss of colour, and in general with a diminution of bulk, and having at first sight a good deal of the appearance of tubercle, seems to be only one of the stages in which this derangement of the spleen presents itself to our view. It appears to commence in a partial extravasation of blood, the character of which will perhaps be best conceived by stating it to be what would be called by some pathologists apoplexy of the spleen. This I had already conceived to be the case, and suspected that it arose from external violence. The case of Mary Hamblin, No. I., tends to confirm this suspicion: it is however by no means improbable that spontaneous or idiopathic apoplexies of the spleen may take place. Yet the general appearance of the lesion will, I believe, form a characteristic distinction between such cases and those in which external violence had been the cause.

When the effusion of blood is quite recent, the part affected is distinguished from the other parts of the organ, not only by its increased density, but by its deep venous hue. It does not remain long in this state, but soon begins to assume a brownish colour,

the change generally taking place at the circumference, but sometimes at the centre. This change, the rationale of which is not easily given, is precisely similar to that which takes place in apoplexy of the lungs, in the transition of the red into one of the grey forms of induration of the lung from inflammation; in the coagula sometimes met with in the heart and vessels; in the layers of aneurismal tumours; and even in cerebral apoplexy.

The portion of spleen thus altered, although possessing little perceptible trace of organization, may yet retain its vitality, and remain a permanent structure, in which case its density increases, but its bulk contracts, and a thin semi-transparent boundary may be seen to separate the altered from the healthy structure of the organ; this I conceive to be occasioned by the former not participating in the constant variations of dimension to which the latter is liable. It was in this state that the derangement of which I am speaking first presented itself to my attention. (See 2d, 3d, and 4th Examples.)

Although, as I have remarked, the derangement in question, when arrived at this stage, may remain quiescent for an indefinite length of time, and perhaps never throughout the life of the individual give rise to the slightest inconvenience; yet, it would seem to predispose the adjoining parts of the organ to derangement either from external force, or from unusual

distension. In the 5th Example, this disturbance appears to be extremely slight, only amounting to a slight appearance of extravasation or apoplexy.

In the sixth case, that of Maria Lowther, the derangement in the structure of the spleen, in the neighbourhood of the indurated portion, was much more considerable, amounting to complete softening, accompanied by softening in the central part of the degenerated spot. It appeared pretty evident that this state of the spleen was the exciting cause of the severe peritonitis, in the same way that this inflammation is not unfrequently set up by disease in the appendix cæci from feculent concretions. It is also highly probable that some of the remarkable symptoms which attended this case, and excited the idea of phlebitis, were also dependent on what may be considered as the gangrenous softening of the substance of the spleen in contact with the indurated part. No light was thrown on the cause which excited this softening, but if my suspicions are correct as to external injury being the cause of the original derangement, it is likely that a repetition of this cause, may promote the secondary affection by producing a slight laceration on the surface of the indurated part. Although the sudden death of the patient who formed the subject of the seventh case was rather to be attributed to the heart than to the state of the spleen, yet I think we must principally ascribe to this latter cause, the symptoms under which this girl had laboured, and more especially

those paroxysms which were regarded as occasioned by intermittent fever.

My enquiries in this case also did not succeed in leading to any information as to the mode in which the process of softening had been excited. It is possible that slight external violence may have been adequate to this effect. It may, however, be queried whether intermittent fever had not actually existed, in the cold stage of which the spleen being gorged may have sustained a partial laceration where its distension was restrained by the unyielding character of the previously degenerated portion. Be this as it may, there can be but little doubt that the occurrence of such paroxysms would either occasion such a disorganization, or greatly aggravate it when once set up.

No. I.

May 3, 1831. Mary Hamblin, a patient of Dr. Bright's, in Charity Ward, admitted April 27th, 1831, in consequence of a state of mania, in which she was reported to have been a little more than a week. She was the mother of twins, whom she had suckled sixteen months, and being a spare and delicate woman, had been greatly reduced thereby. For some time before her admission she had complained of uneasiness in her head, and said she was afraid she should go out of her mind, as her mother and some others of her relations had done. Only an imperfect

account could be obtained of her symptoms prior to admission, but it appeared probable that some restraint approaching to violence had been employed, since in a transient lucid interval which occurred whilst in the hospital, she expressed her satisfaction at not being likely to be again ill used. Whilst in the hospital she generally lay in a state of insensibility, almost amounting to coma, yet sometimes, in a state approaching to delirium, she would sing hymns, and try to get out of bed, but she was easily restrained. It did not appear that there was any erotic tendency in her delirium. She died six days after her admission.

Nothing remarkable was observed external to the dura mater. The vessels of the pia mater were less injected than is usual, more especially where forming the plexus choroides, which was nearly colourless. The arachnoid about the pons varolii was rather considerably but partially thickened. The substance of the brain offered nothing remarkable.

The pleuræ, lungs, pericardium, and heart were generally healthy.

The peritoneum appeared free from marks of either old or recent inflammation, and nothing remarkable was discovered in the mucous membrane of the alimentary canal.

The liver seemed healthy in form and texture, but

its convex surface was mottled with irregular spots and blotches of a yellowish colour, which suggested the idea that the organ had received some violence.

The spleen was of its natural size and generally of a healthy appearance, but it was irregularly mottled with spots of a deeper and darker venous hue, the central parts of some of which were of a lighter colour. Notwithstanding the irregularity of these spots, they imperfectly affected a transverse direction across the organ a little above its middle. On cutting into the spleen so as to pass through some of these spots, they were found to consist of portions of the substance of the spleen indurated by coagulated venous blood, like portions of lung in pulmonic apoplexy. Some of these masses were of a light colour internally, but with little or no softening. It seems highly probable, that these appearances in the liver and spleen, and which had in all probability nothing at all to do with the death of the patient, were the effects of some degree of injury produced by the means employed for restraint shortly after her attack.

The kidneys were not observed to offer any thing remarkable.

The uterus was of its natural size, but its lining membrane was of a deep red colour. The fallopian tubes were free from adhesions and appeared quite healthy. The ovaries were rather large, exhibited

few cicatrices, and were remarkably smooth for those of a married female of her age. They were rather flabby.

EXAMPLE II.

*Extract from the report of the Case of
Daniel Patrick.*

In the spleen, which was rather large, there was an irregularly shaped but circumscribed mass, rather larger than a hazle nut, of a structure which at first appeared to be tuberculous, but which proved to be dependent on a peculiar alteration of structure.

EXAMPLE III.

*Extract from the report of the Case of
J. Woodbridge.*

The spleen was of moderate size ; a defined portion of its structure was considerably indented, having about the firmness of liver a little indurated, the part so altered was of a light brown colour, approaching to that of new leather ; the passage from this to the healthy part was abrupt, but there was no membranous separation between them. This derangement of structure did not appear to be attended with either increase or diminution of volume, so as to produce either depression or protuberance at the surface, although this was partially implicated.

EXAMPLE IV.

*Extract from the report of the Case of
William Hunter.*

The spleen was of a moderate size; it had contracted some peritoneal adhesions, there were a few small semi-cartilaginous spots on its surface, and a circumscribed portion had undergone a peculiar degeneration, by which its texture was rendered solid and of a light brown colour. As in the three former cases in which this derangement has been already noticed, it appeared, on the surface of the organ, where a slight depression existed between the healthy and altered structure. A vessel of considerable size was seen passing through this part, which still retained some faint traces of its original structure.

EXAMPLE V.

Extract from the report of James Skelton.

The spleen was of moderate size, it was in its contracted state, and its structure was generally healthy, but deeply imbedded in its convex surface, there was a light yellowish brown well defined deposit. About some portion of the surface of this deposit, there was a little extravasation of blood, apparently of an apoplectic character.

CASE VI.

October 24th, 1829. " Maria Lowther, aged 17 years, admitted into the Clinical Ward on the 22d

instant under the care of Dr. Bright. She had enjoyed but indifferent health for some time. About five weeks ago she suffered much from a whitlow on the forefinger, caused by the prick of a needle, her finger healed, but about a week after, she appeared to have a cold. She had cough, painful respiration, and frequent rigors, she complained of great pain in the bowels and head, particularly of the latter. An abscess now appeared under the axilla, but previously to its appearance she had suffered much from irritability; this abscess dispersed, but was immediately succeeded by another on the fore-arm, together with the reappearance of the one in the axilla. Her head at this period became more confused, she grew worse, and became delirious. Her legs were observed to be œdematous on the Monday or Tuesday previous to her admission, and general tenderness was complained of for the first time yesterday. For a week past her motions had appeared bloody, and epistaxis had taken place on two occasions. Soon after her admission she appeared in an exhausted state, her face pale and anxious, her eyes sunk, and there was exquisite tenderness to the touch throughout the body. The feet and legs were slightly œdematous, ecchymosed spots were formed on the hands and feet, there was an abscess in the axilla and another on the fore-arm. The abdomen was tumid as well as tender. At night the symptoms were aggravated, she became delirious during the night, and at the morning visit she was found in a dying state; death took place about half-past ten in the morning of the 23d."

The body was a little emaciated, the discolouration resembling purpura had almost entirely disappeared. The cuticle was raised both at the tip of the middle finger, and on one toe on the right side into two bullæ containing slightly purulent sanguinolent serum. The abscess in the axilla presented a cavity of about the size of a moderate orange, it was ragged internally, and of a dirty sanguinolent colour; one or more of the absorbent glands were nearly detached by the destruction of the surrounding cellular membrane.

Nothing remarkable was observed in the calvaria or membranes of the brain, except that the arachnoid was very transparent, and that there was rather an unusually small number of vessels visible in the pia mater. The substance of the brain was likewise healthy, except at the posterior part of the left hemisphere, where a portion of about an inch in diameter, occupying a part both of the cortical and medullary structure, was completely softened and broken down. It was slightly discoloured by blood imperfectly intermixed, it was not surrounded by any induration or distinct line of demarcation, but the softening was most considerable towards the centre.

Both pleuræ were healthy, with the exception of slight traces of recent inflammation at the lower part of the left lung. The substance of the lungs was likewise generally healthy, but at the posterior part of the left there were some traces of recent inflamma-

tion limited to a few lobules which were firmer and of a somewhat lighter colour than the surrounding structure, which was the seat of cadaveric infiltration. At the back part of the left lung there was some hepatization as well as cadaveric infiltration.

The pericardium was healthy, but contained about two ounces of straw coloured serum. There was a small opake white patch on the anterior surface of the heart. The organ itself was quite healthy, but contained a small quantity of blood which was imperfectly coagulated, except near the origin of the vessels where there was some coagulum prolonged into these vessels. A partial separation of the colouring matter had taken place.

The abdomen was somewhat distended, the peritoneum presented universal marks of inflammation, several convolutions of intestines were feebly glued together by tender and opake membranous flakes of lymph. There was considerable effusion of yellow colour mixed with flocculent particles of opake lymph, and presenting a sero-purulent character. The surface of the stomach in contact with the under surface of the liver was covered with a layer of yellow lymph. The peritoneal covering of the small intestines was easily detached from the muscular coat. The stomach and small intestines were distended with gas, their mucous membrane was generally healthy, but the patches of aggregate glands were rendered distinct by numerous minute blackish points. The

mucous membrane of the colon was of a darkish grey colour, and was extremely irregular, which appeared to depend on lymph and other secretions becoming adherent to a number of small thickly scattered points. On scraping off this secretion, the subjacent surface presented either a smaller spot of very slight abrasion or a livid ecchymosis. This state had probably been preceded by suppressed mucous secretion. The liver was of large size, extending over the spleen to the left side, and passing down for some distance between it and the parietes. It was rather pale, but in other respects healthy, except that it presented spots of ecchymosis where it had been in contact with the spleen.

The spleen was rather large, and presented the following remarkable appearances: two portions rather more than an inch in breadth, placed transversely and occupying the whole of the shorter diameter of the spleen, were of a lightish yellow colour, they were of closer structure than the natural texture, and appeared to depend on a particular degeneration of a part of the organ itself. A process of softening had broken down the central parts of these portions, which were situated about an inch and a half from each other. The substance of the spleen in contact with these portions was of a deep livid colour and completely softened.

The pancreas was healthy. The kidneys were likewise healthy. The ovaries were of an elongated

figure, full and plump, their surfaces presented numerous bright red points, their tunics white and dense, without any appearance of cicatrices. The vesicles of De Graaff generally clear and healthy, but a few, in one of the ovaries, were in the form of white opaque semi-cartilaginous bodies. The intervening substance in both was pale, but unusually firm.

The uterus was small.

There was an equivocal appearance of a remaining hymen.

The symptoms in this case having induced a suspicion that the veins were inflamed, they were particularly examined in different parts of the body. No phlebitis was, however, discovered, yet in some of these vessels the blood was coagulated, and from its appearance had probably been in this state a short time before death.

CASE VII.

September 21st, 1828. Martha Newton, aged apparently about 25 years, a patient of Dr. Bright's, in Dorcas's ward, into which she was admitted on the 17th instant. She had come to town from Brighton, and described herself as labouring under intermittent fever, but her appearance did not altogether accord with the idea of ague. She stated that she had been taking bark prior to her coming to town, and a re-

petition of bark or sulphate of quinine was prescribed. Her pulse was not remarkable either for quickness or irregularity, and none of her complaints suggested a suspicion of disease of any of the viscera of the thorax. She had one paroxysm shortly after her admission, which was reported by the sister of the ward to differ from the ordinary paroxysm of ague. She was seen by Dr. Bright in another of these paroxysms on the 19th. The quinine or bark was continued, but some local visceral disease rather than ague was suspected. She died suddenly on the morning of the 20th, after eating a moderate breakfast.

The body was pale and not emaciated, and rather œdematous, the areola round the nipple was but faintly discoloured. The abdomen bore no marks of parturition.

The head was carefully examined, but no morbid appearance was detected in the brain or its membranes, except some thickening, and a whitish deposit in very minute opake particles in the plexus choroïdes.

There was a great deal of old pleuritic adhesion on the right side, less on the left, and a small quantity of clear but discoloured serous effusion on both sides, infiltrating the adventitious cellular structure. Both lungs had more than the natural firmness, but not the character of hepatization. They were of a

darkish livid colour, very œdematous, contained very little air, and no tuberculous nor other deposit.

The pericardium contained two or three ounces of serum, which was very sanguinolent. This state of the serum, not only in the pericardium, but also, though in a less degree, in the pleura, was probably more the result of transudation after death than before it. There was a strong adhesion in the form of a ligamentous bridle between the close and the reflected pericardium on the left side. The pericardium on the auricle was roughened by minute elevations.

The heart appeared distended, and on being laid open by a transverse section it was found to be dilated, with thinning rather than hypertrophy of its parietes. The muscular structure was flabby and pale, and less evidently fibrous than in health. The right ventricle was nearly as much dilated as the left; no valvular disease was detected, but at the mouth of the pulmonary artery there was a singular original formation. There appeared to be four valves instead of three, a small part of one of them being cut off by a thin membranous partition.

The quantity of fluid in the abdomen was inconsiderable. There were no adhesions except in the neighbourhood of the spleen, where they were considerable, old and strong, especially between this organ and the diaphragm.

In the spleen there was a defined mass of about the size of a walnut of a light colour, which, as in some specimens before observed, appeared to depend on an infiltration into, or degeneration of the structure of the part. This mass appeared to be commencing the process of softening. The structure immediately adjoining it was, however, much more softened, so as nearly to have effected its separation, it was of a dark or almost black colour. The remainder of the spleen, though not similarly affected, was soft, probably from cadaveric change. There was, however, one part of its substance in which a change resembling the infiltration before mentioned was commencing.

The stomach contained scarcely any food, and with the intestines appeared to be tolerably healthy.

The liver and pancreas were likewise healthy.

The kidneys were pale, and in the right there was a yellowish white mass in which a degeneration similar to that noticed in the spleen appeared to have taken place, the traces of the original structure being still visible.

The ovaries presented several cicatrices, the tubes were free from adhesions. The uterus rather large. A vascular peritoneal cyst was attached to one of the broad ligaments.